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(=- NUMBERS & ODDITIES -=)
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Hello everyone ! In this edition of N&O we have the first update to the 'Brotherhood' edition of the Newsletter and further an interesting story about the 'Russian Man' numbers stations that I mentioned in WUN #2. The manuscript was written by Mike Chace and it looks great. Thanks Mike !

The 'Brotherhood'

Thanks for the many compliments that you sent me for the Brotherhood special. I hope that the story made you tune in to these stations. I wonder if the Brotherhood also has a network in Australia. Has anyone in this part of the world heard stations like this ? Does anyone know where the stations in Europe and America's are located ? Please, tune in as often as you can and let me know the results. It would be nice if we could unwrap this mystery. As promised there will be updates to this article in my columns. Here is the first update to the European frequency list: Callsign NQX must be NXQ.

Frequency	UTC	Link	Mode / remarks
16008 kHz,	9.17,	10163,	F1B-75
12136 kHz,	15:32,	00149,	F1B-100 'DZR' to "Master" backup channel
11460 kHz,	15:32,	00149,	F1B-200 !! "Master" to 'DZR' (sked 15.30)
12174 kHz,	08.00,	00052,	F1B-75 to NXQ

The 'pip'

The mystery pip on 3754.7 kHz appears to be a time signal station in Krashnodar.

Jean Michel Jarre

The music that is used by the 'Jarre' numbers station that I mentioned in WUN #2 is 'Magnetic Fields'. The station is still there on 6645 kHz and can be heard on Monday night at 19.00 UTC.

The Russian Man and English Man Numbers Stations

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1. Introduction

Often heard, seldom mentioned is probably the maxim for this station. This may have something to do with the fact that the station seems to have no discernible schedule. If you want to hear it, you will need some patience (and a bit of the usual luck) but I can be pretty confident in saying that you'll find either (or both) on the air at any time and on any day.

Both stations are believed to be part of the same general operation from within the CIS, sending to agents of the KGB and GRU (Naval Intelligence). I should also add that there are a number of CW stations and the so-called German Lady that carry the same message formats and one can only assume that these are part of the same operation as none of the agent numbers appear to overlap. There is also a "German Man" but I have only heard this once -- I would welcome any further reports of this variant in case my ears deceived me !

2. Characteristics

2.1. Message Formats

Both stations are unmistakable when you hear them. Broadcast quality AM transmitters appear to be used. In general, the signal strengths received are quite phenomenal at whatever frequency. Indeed, some of the signal strengths are so high that it has been possible on many occasions to unplug the antenna from the receiver and still hear the station with a massive signal ! Transmitters are usually switched on five to ten minutes before a transmission. If you hear a strong AM carrier that you haven't noticed before, stay on the frequency. The station often "tunes up" 5 to 10 minutes before transmission with a steady 1kHz tone for about 30 seconds and you'll often hear some short snatches of the voice calling the agent once or twice.

The frequencies used are always exactly on a kilohertz point. In other words, if you hear a strong carrier on 13445.5kHz, it's almost certainly not a Russian or English Man -- they would be on 13445 or 13446kHz exactly.

2.2. Voices

The stations use the same two types of synthesized voice for each language. I call them the "thin" and the "thick" voice. The thick voice is lower in pitch, slower in delivery and generally sounds very labored. In contrast, the thin voice has a higher pitch, slightly faster delivery and sounds quite feeble. Both voices speak the same digits but, as we shall see later, are always associated with particular formats of message.

2.3. Pronunciation

The numbers spoken by the English Man are unique and you'll know when

you've found it -- three is spoken as "thlee" and eight as "ate" (as in the past tense). It's quite unmistakable. Both English and Russian machines also have the same characteristic delay after any zero (or "noll") that is spoken. Here are the numbers as they are heard phonetically:

No.	Russian	English
1	Adim	Won
2	Dva	Too
3	Tri	Thlee
4	Chedearia	Fore
5	Byad	Fife
6	Shin	Six
7	Shesht	Seven
8	Vojim	Ate
9	Devierd	Nine
0	Noll	Zero

3. Message Formats

There are a number of message formats that I have come across. Each is detailed below.

3.1. Format 1

This is always spoken by the thick voice whether in English or Russian.

123, 123, 123 -- for 5 minutes

Pause

Key, Key

Group count, Group count

5F groups, each repeated

Key, Key

Group count, Group count

00000

Null Messages (No traffic) is given as:

123, 123, 123, 00000 -- for 5 minutes

3.2. Format 2

This is always spoken by the thin voice whether in English or Russian.

123, 123, 123 (pause) 1 -- for 5 minutes

Pause

Key and Group count

Key and Group count

5F groups, no repeat

000

000

Null Messages (No traffic) is given as:

123, 123, 123, 000 -- for 5 minutes

3.3. Format 3

This message format is sent if there are two messages for the agent to be sent in the same transmission (rare). It is basically the same as format 2 and is again only spoken by the thin voice.

123, 123, 123 (pause) 2 -- for 5 minutes

Pause

Key and Group count (Message 1)

Key and Group count (Message 1)

5F groups, no repeat (Message 1)

123, 123, 123 (pause) 2 -- for 1 minute

Key and Group count (Message 2)

Key and Group count (Message 2)

5F groups, no repeat (Message 2)

000

000

3.4. Format 4

The Russian version of the station sends a format 2 (or 3) message where 6 ("shest") and 0 ("noll") both result in a slight delay before sending the next digit and there is a marked pause after each ten 5F groups have been sent. This variant appears to be associated with long messages.

3.5. Format 5 (Control Transmission)

There also appears to be a short message format, directed at agent 615 (or rarely, agent 455). In this format, there is only one 5F group sent to the agent at a time. I have only heard the Russian Man send this format. Because of the similarity with the Counting Stations "Control Transmissions" I also name this short message format in the same way. Its format is as follows:

615, 615, 615, 1st 5F Group, repeated (for 10 minutes)

615, 615, 615, 2nd 5F Group, repeated (for another 10 minutes)

The two groups sent are rather curious. They are both different each day, do not appear to be used for more than a day and they both start and end with the same digit. Here are some recent examples:

Date (1994)	Group 1	Group 2
15th July	89903	81783
16th July	71784	73804
18th July	63026	65506
19th July	80740	82140
20th July	60191	62021
21st July	99905	91355
22nd July	88873	80193
23rd July	48907	40577

My theory is that these groups are a code to the frequencies to be used during each day. I've attempted to find the key many times but have yet to succeed ! At the time of writing, this transmission can be heard daily

at 08.00 UTC on 14890 kHz and on 11270 kHz at 08.20 UTC. The most bizarre example of this control transmission was heard on Sunday, 24th July 1994. Lasting nearly four hours in total, the Russian Man sent 615 three times, followed 22222 or 11111 once and then a 5F group. There then followed a 10-15 minute break before a new set of groups was sent repeatedly for 10 minutes. The message on that day was as follows:

Group 1	Group 2
72144	none
22222	71154
11111	72864
11111	73464
22222	74964
22222	72094
11111	72464
22222	72764
22222	72954
22222	71944
22222	72184
11111	72604
22222	72544
11111	00000

4. Message Content

Messages appear to contain random 5 figure groups although there are frequent occurrences of messages which possess many double digit groups eg 10233, 43305, 44553 and even more strangely, never have certain digits at all! As an example, the Russian Man sent an 81 group message to agent 258 on the 25th of June 1994. Not one single 5 figure group contained either an 8 or a 9. This is very odd and certainly indicates some non-random behavior (anyone with any clues please let us know).

5. Agents

The list of agents heard so far is extensive and indicates a wide-scale operation -- (5 Zeroes or 6 Zeroes indicates whether the agent receives Format 1 or Format 2/3 messages):

Russian		English	
Agent	Zeroes	Agent	Zeros
021	?	139	6
031	?	182-1	?
087-1	6	192	?
102	?	235	5
127	5	261	5
139	5	309	?
147	6	342-1	6
176	5	395	5
191-1	6	475	?

236	5	501	5
258	5 & 6	541	?
275	5 & 6	562	5
423	6	572	5
452	5	597	5
455	?	729	5 & 6
456	6	746	6
467	5 & 6	785-1	?
519	6	821	5
571	6	838	5
573	5	854	?
583	5	897	?
585-1	6	921	6
615	Control	934	?
684	?	947	5
697	5	982	5
724	5 & 6		
738	5		
748-1	6		
758	5		
798-1	?		
824-1	?		
828-1	6		
841-1	6		
846	5		
891-1	?		
991-1	?		

6. The Transmission Schedule

I have to admit that after over two years of intensive monitoring of the stations, I have yet to discern a schedule for either. Transmissions can begin at any five minute interval but most tend to start on the hour with a fair percentage of the rest starting at ten, twenty, forty, or fifty minutes past the hour.

There also seems no pattern to the frequencies used. I have found the station as low as 4400kHz and as high as 16300kHz. One particularly fruitful area however is the range 12100kHz to 12250kHz. About 10% of transmissions seem to occur in this portion of the spectrum but I don't know why! Perhaps it's just a place where propagation tends to be optimum for the distances required.

To find the Russian or English Man, I have a set of frequencies that I sweep through every hour, on the hour, when I'm listening. With practice, you will find that such a sweep can be done within the 5 minutes taken by the station to send its preamble. I also find it useful to search these frequencies at a more leisurely pace ten to fifteen minutes before the hour, listening for the tell tale strong, wide AM carrier signal.

During Winter evenings (1700-0000UTC) or early mornings, Summer or Winter

(0000-0800UTC), I search:

4400-4750, 5000-5850, 6500-7000, 7500-8200, 9000-9350, 10100-11300kHz, 12100-12250kHz.

During Summer evenings (to 2200UTC) or daytime, Winter or Summer, I search: 7500-8200, 9000-9350, 10100-11300, 12100-12250kHz, 13300-13600, 14350-15000, 15800-16300kHz.

The station follows the usual practice of following the daily and annual variations in propagation. This means that frequencies in the daytime are higher than those in the evening and Summer frequencies are generally higher than those in the Winter.

6.1. Repeat Transmissions

Repeats of messages (same time, same frequency) can often, but not always, be found at weekly or daily intervals. Hourly or twenty minute interval repeats are nearly always on a different frequency. A message is generally repeated on a lower frequency. I have heard messages repeated up to five times over a two day period.

6.2 Concurrent Operation

The station has at least three transmitters. Also, at any one time one, two or three can be in operation in any combination of languages. For example, the English (4474kHz) and Russian (5105kHz) stations were active on the 23rd Dec at 2200hrs.

6.3 Regular Transmissions

Despite the lack of any general schedule, each station has at least one regular, weekly transmission. The messages (most often null) are always directed to the same agent. At the time of writing these are:

English Man

Freq. (kHz)	Day	Time (UTC)	Agent	Season
8074	Monday	2010	947	Summer/Winter
10162	Wednesday	1910	947	Summer/Winter
8074	Wednesday	2010	947	Summer/Winter
6925	Friday	2200	572	Summer
5875	Friday	2300	572	Winter
14620	Sunday	1900	729	Summer
13572	Sunday	1900	729	Winter
13423	Sunday	1600	597	Summer

Russian Man

10882	Friday	2000	758	Summer
14890	Daily	0800	615	Control
13420	Saturday	1700	258	Summer

The frequencies of these regular transmissions often vary by up to +/- 15kHz according to interference.

The stations appear to keep UTC time i.e. when the UK moves to Daylight Saving Time (British Summertime) the schedule remains the same.

The first of the English Man's regular transmissions has been the source of some interesting monitoring. Agent 947 receives very little traffic - practically all messages are null (947, 947, 947, 00000). In the past year there have been just two messages for poor old 947. The first occurred on Monday the 21st March 1994 when the message sent on this day consisted of 401 (yes! 401) 5 figure groups. The transmission lasted for nearly two hours. The most recent message occurred on the 27th of June 1994 when 251 groups were sent -- a transmission of nearly an hour's duration.

Any information about this station is welcome. You may address it directly to Mike or you may send it to me.

'till next month, Ary